

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number
WO 2005/078695 A2

(51) International Patent Classification⁷: **G09G 3/36**

(21) International Application Number:
PCT/EP2005/050439

(22) International Filing Date: 1 February 2005 (01.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0401636 18 February 2004 (18.02.2004) FR

(71) Applicant (for all designated States except US): **THOMSON LICENSING SA** [FR/FR]; 46, Quai Alphonse Le Gallo, F-92100 Boulogne Billancourt (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MORVAN, Patrick** [FR/FR]; 3 Impasse des Coquelicots, F-35890 Laille (FR). **RIO, Philippe** [FR/FR]; 12 Square du Roi Arthur, F-35000

Rennes (FR). **FRITSCH, Maurice** [FR/FR]; 3 rue Louis Postel, F-35000 Rennes (FR). **DOYEN, Didier** [FR/FR]; 18 Allée de Mi-Forêt, F-35340 La Bouexiere (FR).

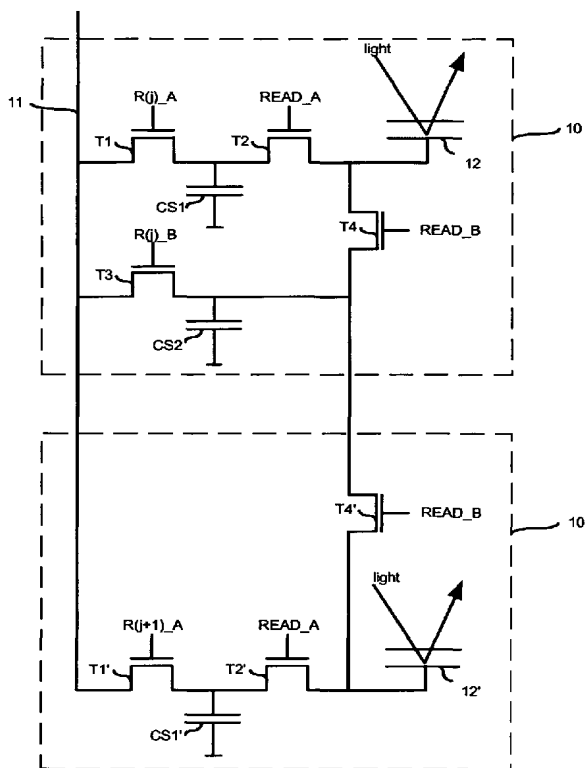
(74) Agents: **LE DANTEC, Claude** et al.; THOMSON, 46, Quai Alphonse Le Gallo, F-92100 Boulogne Billancourt (FR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: DISPLAY DEVICE WITH LCOS VALVE OF REDUCED SIZE



(57) Abstract: The present invention relates to the architecture of a valve of liquid crystal elements with pixel memory for front or rear projector. The valve (1) comprises elements arranged in rows and columns, each of the elements comprising a liquid crystal controlled by drive means so as to display video information relating to at least one image. According to the invention, one seeks to reduce the size of the drive means of the liquid crystals. Accordingly, capacitors and transistors of the drive means are shared in common between several elements of the valve. The video information intended to be displayed by each of the elements of the valve is coded as a common value (VC) shared by a group of at least two adjacent elements of the valve and a specific value (VS1, VS2) before being transmitted to the valve (1).



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.